

**FREQUENCY MODIFICATION TECHNIQUES THAT ADJUST AN
OPERATING FREQUENCY TO COMPENSATE FOR AGING ELECTRONIC
COMPONENTS**

5 Abstract of the Disclosure

A number of performance parameters for the electronic system are determined at a particular age of the electronic system. The performance parameters can be correlated to maximum operating frequency of electronic components of the electronic system for the particular age of the electronic system. Operating frequency of the
10 electronic components is adjusted in accordance with the performance parameters. The performance parameters may be predetermined (such as through reliability and burn-in testing), determined during the life of the electronic system, or some combination of these. Performance parameters can comprise prior operating frequencies, hours of operation, ambient temperature, and supply voltage. Performance parameters can
15 comprise performance statistics determined using age-monitoring circuits, where an aged circuit is compared with a circuit enabled only for comparison. Performance statistics may also be determined through error detection circuits. If an error is detected, the operating frequency can be reduced.